SUBMISSION QUESTIONS:

a) What operating system (including revision) did you use for your 8051-code development?
Ans: Windows OS

b) What assembler(s) (including revision) did you use?
Ans: Keil uVision 5

c) What ARM development tools did you use?
Ans: STM Cube IDE

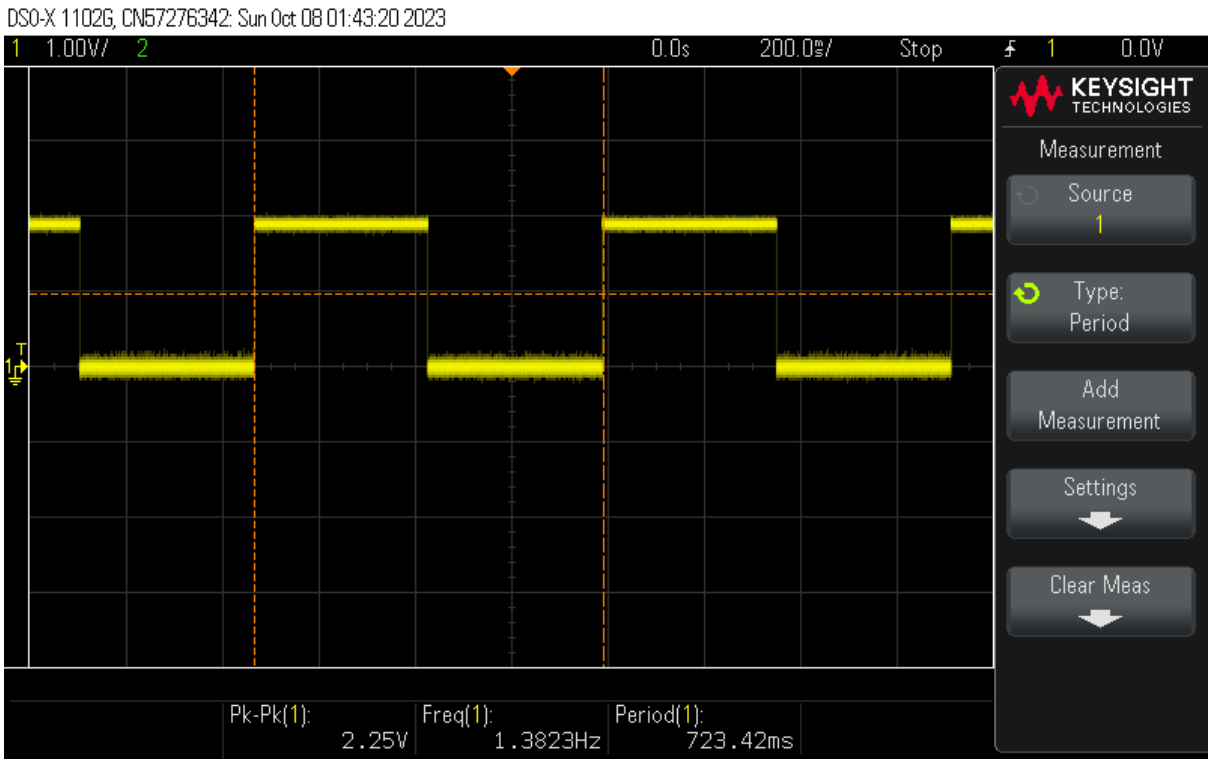
d) Did you install and use any other software tools to complete your lab assignment?
Ans: I have used the above software and LogicPort to complete these lab assignments.

e) Did you experience any problems or challenges with this lab assignment or any of the software tools? If so, describe the issues.
Ans: I found some difficulty in the beginning in using a new software/IDE and working in it.

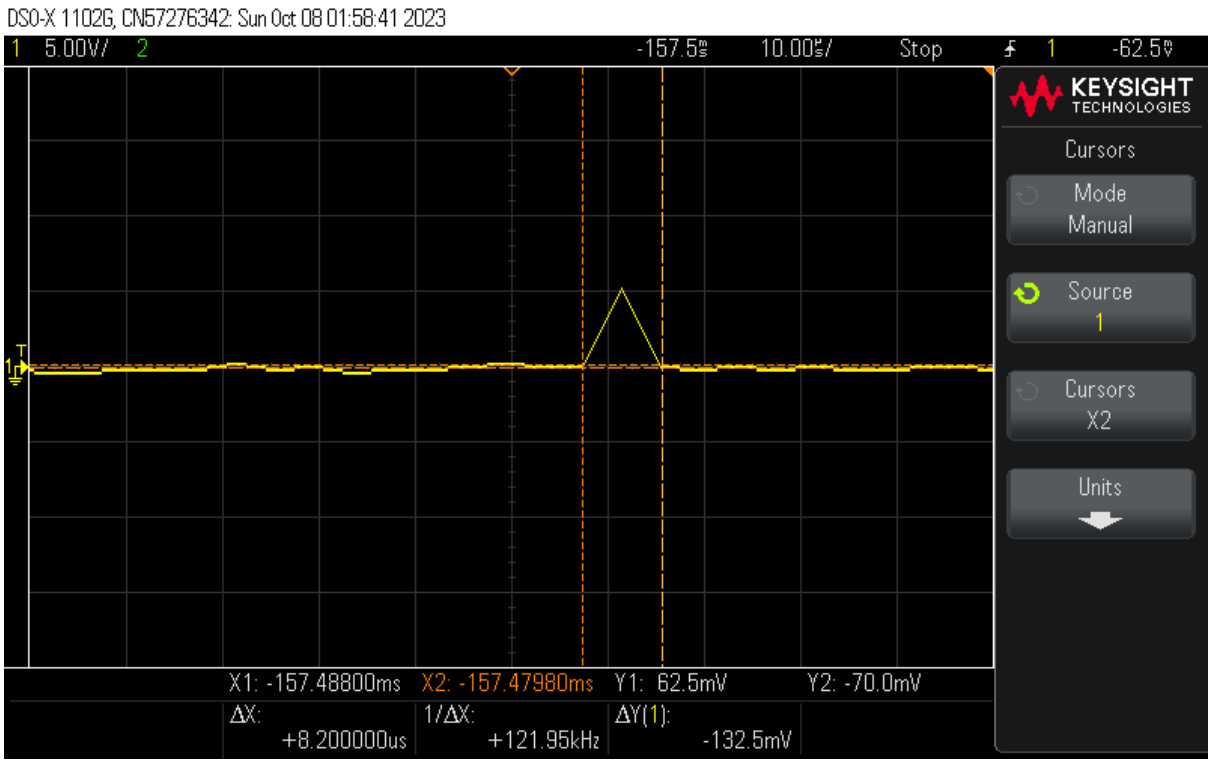
f) If you have any suggestions for changes to this lab assignment for the future, please include those ideas in your submission.
Ans: It would be helpful if demo sessions are conducted when new software is required to be installed/used. It would be helpful if more clarity is given on the things that is expected from us.

TIMING DIAGRAMS:

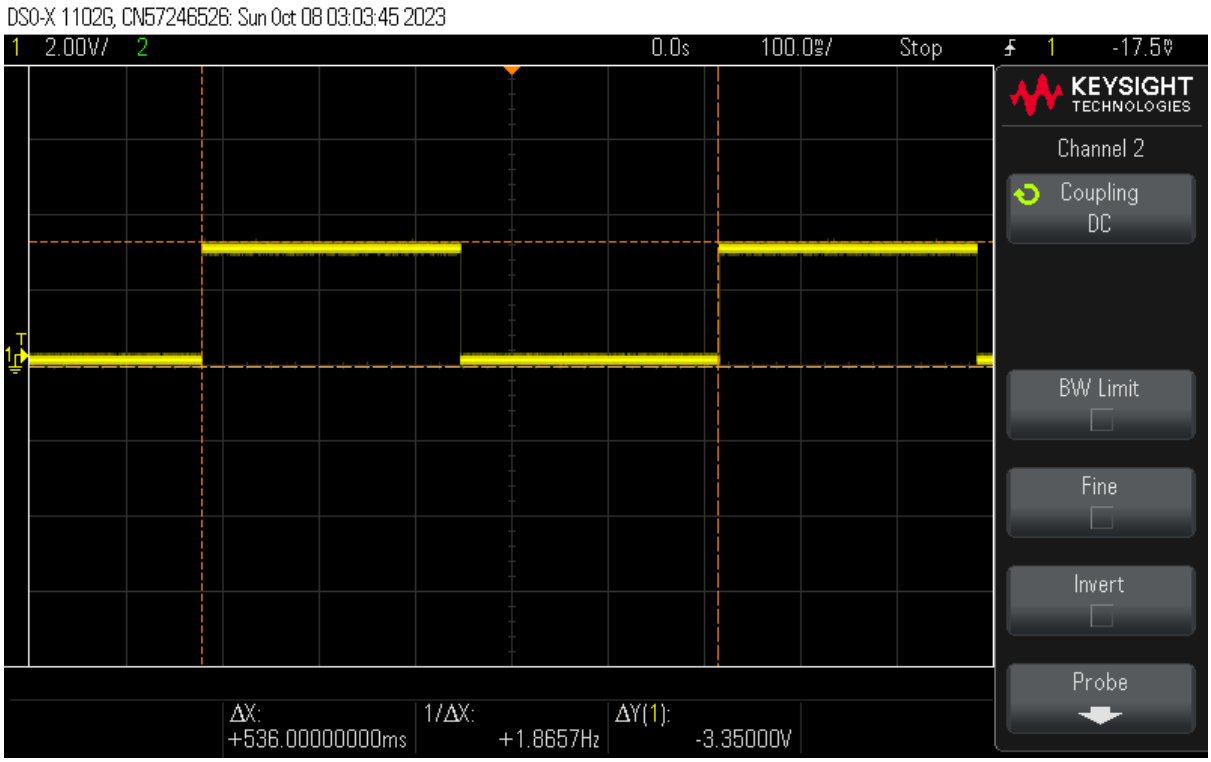
1. Oscilloscope screenshot of Part 1 Toggling LED with the frequency of 1.38 Hz.



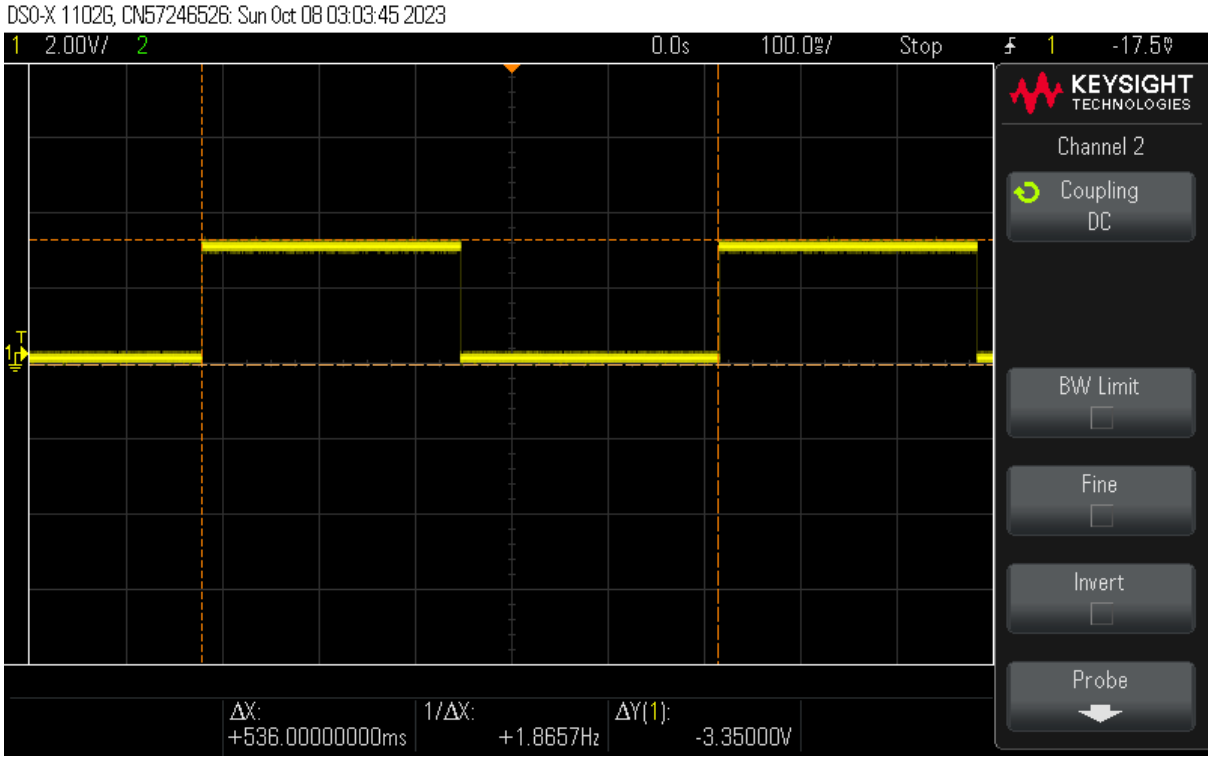
2. Oscilloscope screenshot of Part 1: Toggling another unused pin when entering and exiting ISR.



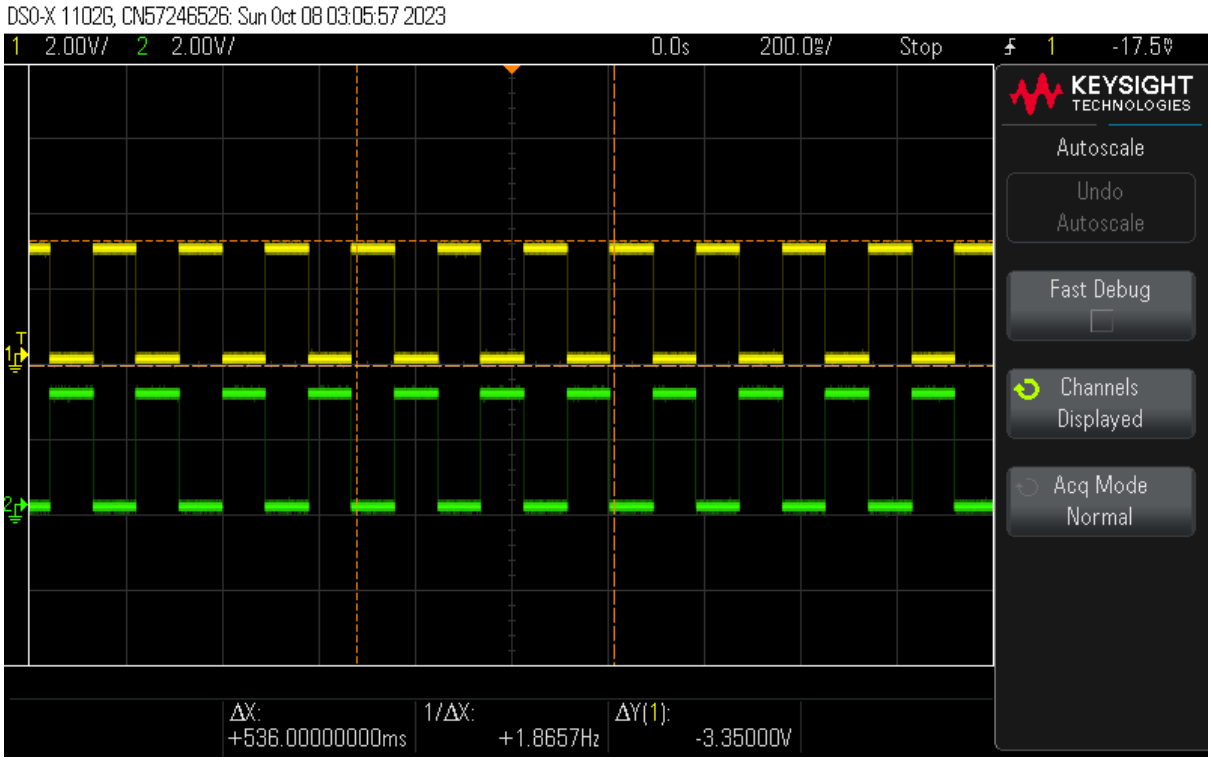
3. Oscilloscope screenshot of Part 2: Toggling LED using STMCube IDE



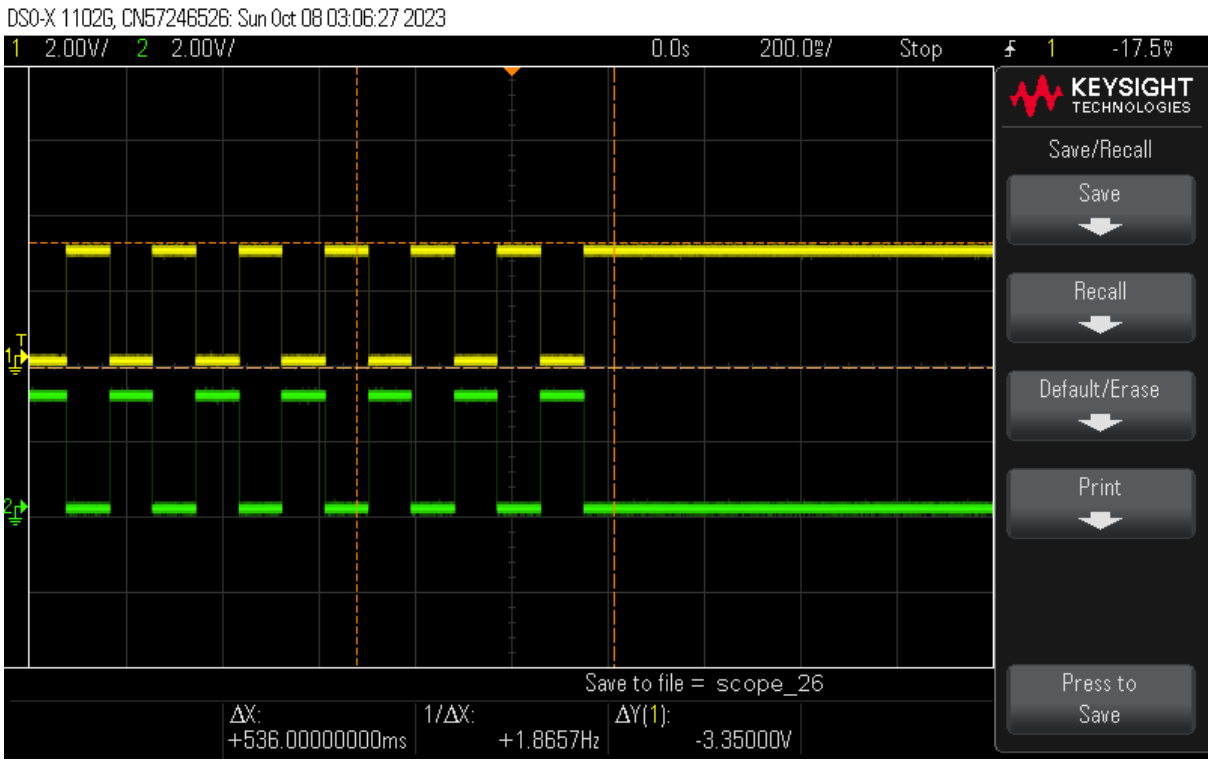
4. Oscilloscope screenshot of Part 2: Turning on the on-board LED for 270ms and turning it off for 270ms.



5. Oscilloscope screenshot of Toggling on-board green and blue LEDs.



Oscilloscope screenshot of When the push button is pressed, toggling is stopped.



6. Logic analyzer screenshot of verifying HEX file.